

Attorney Docket No.: PTQ-0058
Inventors: Van Eyk et al.
Serial No.: 10/824,027
Filing Date: April 14, 2004
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claim 1: (currently amended) A method for identifying an agent ~~or event~~ capable of priming a cell for preconditioning and/or inducing preconditioning of a cell, tissue or organ comprising assessing the ability of the agent ~~or event~~ to modulate abundance of a preconditioning protein in a cell, tissue or organ by detecting a modulation in abundance of the preconditioning protein in the presence of the agent ~~or event~~ as compared to the abundance of preconditioning protein in the absence of the agent~~-or-~~ event, wherein the preconditioning protein is a protein of an oxidative phosphorylation (OxPhos) pathway, tricarboxylic acid (TCA) cycle, a Ca²⁺ handling protein, a chaperone protein, or a protein selected from aldehyde dehydrogenase, NG-dimethylarginine dimethylaminohydrolase (DDAH), and the RNA binding protein regulatory subunit DJ-1.

Claim 2-12: (canceled)

Claim 13: (currently amended) The method of claim 1 wherein the agent ~~or event~~ identified modulates the

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abundance of preconditioning protein in the cell, tissue or organ and leads to a change via cross-talking, a feed-back mechanism or a signaling mechanism which effects the first window of preconditioning, the second window of preconditioning or both windows of preconditioning of a cell.

Claim 14: (currently amended) The method of claim 1 wherein the agent ~~or event~~-identified modulates the abundance of preconditioning protein in the cell, tissue or organ and leads to a change in function of a protein complex or pathway of which the modified protein is a member.

Claim 15: (currently amended) The method of claim 1 wherein the agent ~~or event~~-identified modifies a mitochondrial protein.

Claim 16: (currently amended) The method of claim 1 wherein the agent ~~or event~~-identified increases a level the abundance of one or more of isocitrate dehydrogenase NAD+ specific subunit alpha IDH, succinyl CoA ligase, a 23 kDa mitochondrial precursor subunit of Complex I, a 24 kDa mitochondrial precursor subunit of Complex I, a 30 kDa

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mitochondrial precursor subunit of Complex I, a δ chain
mitochondrial precursor of an F_1 portion, a d chain
mitochondrial precursor of a F_0 portion of Complex V,
prohibitin, ADP ribosyl hydrolase, HSP27 and RNA binding
protein regulatory subunit (DJ-1).

Claim 17: (currently amended) The method of claim 1
wherein the agent ~~or event~~ identified decreases ~~a level the~~
abundance of one or more of dihydrolipoamide
succinyltransferase, core protein I of Complex III, metaxin
2 and sarcalumenin.

Claim 18: (currently amended) The method of claim 1
wherein the agent ~~or event~~ identified changes ~~a level the~~
abundance of DDAH.

Claim 19: (currently amended) The method of claim 1
wherein the agent ~~or event~~ identified increases post-
translational modification of β chain mitochondrial
precursor of the F_1 portion of Complex V, protein X, or
aconitase hydratase (aconitase).

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Claim 20: (currently amended) The method of claim 1
wherein the agent ~~or event~~ mimics modulation of the
preconditioning proteins by adenosine or diazoxide.